#### RAW SEQUENCE LISTING PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:34

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This Raw Listing contains the General Information Section and up to the first 5 pages.

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SEQUENCE LISTING
 1
 2
           General Information:
    (1)
 5
          (i) APPLICANT: Murphy, Brian R.
                         Collins, Peter L.
 6
 7
                         Whitehead, Stephen S.
                         Bukreyev, Alexander A.
 8
                         Juhasz, Katalin
 9
10
         (ii) TITLE OF INVENTION: PRODUCTION OF ATTENUATED RESPIRATORY
11
                 SYNCYTIAL VIRUS VACCINES FROM CLONED NUCLEOTIDE SEQUENCES
12
13
        (iii) NUMBER OF SEQUENCES: 14
14
16
         (iv) CORRESPONDENCE ADDRESS:
               (A) ADDRESSEE: Townsend and Townsend and Crew LLP
17
               (B) STREET: Two Embarcadero Center, 8th Floor
18
19
               (C) CITY: San Francisco
20
               (D) STATE: CA
               (E) COUNTRY: USA
21
22
               (F) ZIP: 94111-3834
23
          (v) COMPUTER READABLE FORM:
24
               (A) MEDIUM TYPE: Floppy disk
25
               (B) COMPUTER: IBM PC compatible
26
               (C) OPERATING SYSTEM: PC-DOS/MS-DOS
27
28
               (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
29
         (vi) CURRENT APPLICATION DATA:
31
               (A) APPLICATION NUMBER: 09/444,221
32
               (B) FILING DATE: 19-NOV-1999
33
               (C) CLASSIFICATION:
34
        (vii) PRIOR APPLICATION DATA:
35
               (A) APPLICATION NUMBER: US 08/892,403
36
               (B) FILING DATE: 15-JUL-1997
37
38
39
        (vii) PRIOR APPLICATION DATA:
               (A) APPLICATION NUMBER: US 60/047,634
40
41
               (B) FILING DATE: 23-MAY-1997
42
43
        (vii) PRIOR APPLICATION DATA:
               (A) APPLICATION NUMBER: US 60/046,141
44
45
               (B) FILING DATE: 09-MAY-1997
46
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DATE: 05/23/2000 TIME: 13:39:34

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47 48 49 50	(vii)	PRIOR APPLICATION DATA: (A) APPLICATION NUMBER: US 60/021,773 (B) FILING DATE: 15-JUL-1996							
51	(viii)	ATTORNEY/AGENT INFORMATION:							
52	(*****)	(A) NAME: Parmelee, Steven W.							
53		(B) REGISTRATION NUMBER: 31,990							
54		(C) REFERENCE/DOCKET NUMBER: 17634-000510							
55		, , , , , , , , , , , , , , , , , , , ,							
56	(ix)	TELECOMMUNICATION INFORMATION:							
57		(A) TELEPHONE: 206-467-9600							
58		(B) TELEFAX: 415-576-0300							
59									
60									
61	(2) INFO	RMATION FOR SEQ ID NO:1:							
62									
63	(i)	SEQUENCE CHARACTERISTICS:							
64		(A) LENGTH: 15223 base pairs							
65		(B) TYPE: nucleic acid							
66 67		(C) STRANDEDNESS: single (D) TOPOLOGY: linear							
6 <i>1</i>		(b) Topologi: Timear							
69	(ii)	MOLECULE TYPE: cDNA							
70	(11)	RODDCODE IIID. CDMA							
71									
72									
73	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:1:							
74									
75	ACGCGAAA	AA ATGCGTACAA CAAACTTGCA TAAACCAAAA AAATGGGGCA AATAAGAATT	60						
76									
77	TGATAAGT.	AC CACTTAAATT TAACTCCCTT GGTTAGAGAT GGGCAGCAAT TCATTGAGTA	120						
78									
79	TGATAAAA	GT TAGATTACAA AATTTGTTTG ACAATGATGA AGTAGCATTG TTAAAAATAA	180						
80	CA MOOMA M		240						
81 82	CATGCTAT	AC TGATAAATTA ATACATTTAA CTAATGCTTT GGCTAAGGCA GTGATACATA	240						
83	СУУДСУУУ	TT GAATGGCATT GTGTTTGTGC ATGTTATTAC AAGTAGTGAT ATTTGCCCTA	300						
84	CAATCAAA	III GARIGOCAII GIGIIIGIGE AIGIIAIIAE AAGIAGIGAI AIIIGCCIA	500						
85	ATAATAAT.	AT TGTAGTAAAA TCCAATTTCA CAACAATGCC AGTACTACAA AATGGAGGTT	360						
86									
87	ATATATGG	GA AATGATGGAA TTAACACATT GCTCTCAACC TAATGGTCTA CTAGATGACA	420						
88									
89	ATTGTGAA	AT TAAATTCTCC AAAAAACTAA GTGATTCAAC AATGACCAAT TATATGAATC	480						
90									
91	AATTATCT	GA ATTACTTGGA TTTGATCTTA ATCCATAAAT TATAATTAAT ATCAACTAGC	540						
92									
93	AAATCAAT	GT CACTAACACC ATTAGTTAAT ATAAAACTTA ACAGAAGACA AAAATGGGGC	600						
94	333 <b>0</b> 333~	ON AMMONGOUNT COCKARON CANADAN COCKARON TO CANADAN CANADAN CONTRA	660						
95 96	AAATAAAT	CA ATTCAGCCAA CCCAACCATG GACACAACCC ACAATGATAA TACACCACAA	660						
96 97	<u>አርአሮ</u> ሞርአሞ	GA TCACAGACAT GAGACCGTTG TCACTTGAGA CCATAATAAC ATCACTAACC	720						
98	AGACIGAI	ON TENENDACIAL GAGACEGITG TENETIONER CENTANIANE MICACIANCE	, 20						
99	AGAGACAT	CA TAACACACAA ATTTATATAC TTGATAAATC ATGAATGCAT AGTGAGAAAA	780						
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100							
101	CTTGATGAAA	AGCAGGCCAC	ATTTACATTC	CTGGTCAACT	ATGAAATGAA	ACTATTACAC	840
102							
103	AAAGTAGGAA	GCACTAAATA	TAAAAAATAT	ACTGAATACA	ACACAAAATA	TGGCACTTTC	900
104 105	ССТАТСССАА	TATTCATCAA	театсатесе	<b>ጥጥርጥጥል</b> ርል ልጥ	ССРДТСССРД	таассстаса	960
105	CCIAIGCCAA	INTICATOAN	TCATGATGGG	IICIIAGAAI	GCATTGGCAT	IANGCCIACA	300
107	AAGCATACTC	CCATAATATA	CAAGTATGAT	CTCAATCCAT	AAATTTCAAC	ACAATATTCA	1020
108							
109	CACAATCTAA	AACAACAACT	CTATGCATAA	CTATACTCCA	TAGTCCAGAT	GGAGCCTGAA	1080
110					3.3.03.00.00.00		1140
111 112	AATTATAGTA	ATTTAAAACT	TAAGGAGAGA	TATAAGATAG	AAGATGGGGC	AAATACAACC	1140
113	<b>ΑΤ</b> ΙΙ Ο ΤΟ Τ	GCAAAGTCAA	GTTGAATGAT	ACACTCAACA	AAGATCAACT	TCTGTCATCC	1200
114		00.22.010.21	01101110111				
115	AGCAAATACA	CCATCCAACG	GAGCACAGGA	GATAGTATTG	ATACTCCTAA	TTATGATGTG	1260
116							
117	CAGAAACACA	TCAATAAGTT	ATGTGGCATG	TTATTAATCA	CAGAAGATGC	TAATCATAAA	1320
118 119	TITICA CITICACT	TAATAGGTAT	CTTATATCCC	አ ጥርጥርጥ <b>አ</b> ርርጥ	TACCA ACACA	አርአርአርርስጥል	1380
120	TICACIGGGI	IAAIAGGIAI	GITATATGCG	AIGICIAGGI	IAGGAAGAGA	AGACACCATA	1300
121	AAAATACTCA	GAGATGCGGG	ATATCATGTA	AAAGCAAATG	GAGTAGATGT	AACAACACAT	1440
122							
123	CGTCAAGACA	TTAATGGAAA	AGAAATGAAA	TTTGAAGTGT	TAACATTGGC	AAGCTTAACA	1500
124				mam. a	CCTT CT 7 7 7 7	3 3 MCC (M3 3 3 3	1560
125 126	ACTGAAATTC	AAATCAACAT	TGAGATAGAA	TCTAGAAAAT	CCTACAAAAA	AATGCTAAAA	1560
127	GAAATGGGAG	AGGTAGCTCC	AGAATACAGG	CATGACTCTC	CTGATTGTGG	GATGATAATA	1620
128							
129	TTATGTATAG	CAGCATTAGT	AATAACTAAA	TTAGCAGCAG	${\tt GGGACAGATC}$	TGGTCTTACA	1680
130							
131	GCCGTGATTA	GGAGAGCTAA	TAATGTCCTA	AAAAATGAAA	TGAAACGTTA	CAAAGGCTTA	1740
132 133	רייז רייט א מכי	ACATAGCCAA	СУССТТСТУТ	СУУСТСТТТС	ממממרמידרר	<b>ርር</b> ልርጥጥጥልጥል	1800
134	CIACCCAAGG	ACATAGCCAA	CAGCIICIAI	GAAGIGIIIO	Annumentee	CC11C11111111	1000
135	GATGTTTTTG	TTCATTTTGG	TATAGCACAA	TCTTCTACCA	GAGGTGGCAG	TAGAGTTGAA	1860
136							
137	GGGATTTTTG	CAGGATTGTT	TATGAATGCC	TATGGTGCAG	GGCAAGTGAT	GTTACGGTGG	1920
138	CC3 CTCTT3 C	C2222EC2CE	maaaaamm	3 mamma aca a	A MOOTE A CHOCK	CCAACCACAA	1980
139 140	GGAGTCTTAG	CAAAATCAGT	TAAAAATATT	AIGITAGGAC	AIGCIAGIGI	GCAAGCAGAA	1980
141	ATGGAACAAG	TTGTTGAGGT	TTATGAATAT	GCCCAAAAAT	TGGGTGGTGA	AGCAGGATTC	2040
142							
143	TACCATATAT	TGAACAACCC	AAAAGCATCA	${\tt TTATTATCTT}$	TGACTCAATT	TCCTCACTTC	. 2100
144						G1 G1 GGT1 G1	01.60
145	TCCAGTGTAG	TATTAGGCAA	TGCTGCTGGC	CTAGGCATAA	TGGGAGAGTA	CAGAGGTACA	2160
146 147	СССАССААТС	ΔΔGΔΤΟΤΔΤΔ	TGATGCAGCA	AAGGCATATG	СТСААСААСТ	CAAAGAAAAT	2220
148	2001.0012110						
149	GGTGTGATTA	ACTACAGTGT	ACTAGACTTG	ACAGCAGAAG	AACTAGAGGC	TATCAAACAT	2280
150							
151	CAGCTTAATC	CAAAAGATAA	TGATGTAGAG	CTTTGAGTTA	ATAAAAAATG	GGGCAAATAA	2340
152							

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DATE: 05/23/2000 TIME: 13:39:35

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153 154	ATCATCATGG	AAAAGTTTGC	TCCTGAATTC	CATGGAGAAG	ATGCAAACAA	CAGGGCTACT	2400
155 156	AAATTCCTAG	AATCAATAAA	GGGCAAATTC	ACATCACCCA	AAGATCCCAA	GAAAAAGAT	2460
157 158	AGTATCATAT	CTGTCAACTC	AATAGATATA	GAAGTAACCA	AAGAAAGCCC	TATAACATCA	2520
159	AATTCAACTA	TTATCAACCC	AACAAATGAG	ACAGATGATA	CTGCAGGGAA	CAAGCCCAAT	2580
160 161	TATCAAAGAA	AACCTCTAGT	AAGTTTCAAA	GAAGACCCTA	CACCAAGTGA	TAATCCCTTT	2640
162 163	TCTAAACTAT	ACAAAGAAAC	CATAGAAACA	TTTGATAACA	ATGAAGAAGA	ATCCAGCTAT	2700
164 165	TCATACGAAG	AAATAAATGA	TCAGACAAAC	GATAATATAA	CAGCAAGATT	AGATAGGATT	2760
166 167	GATGAAAAAT	TAAGTGAAAT	ACTAGGAATG	CTTCACACAT	TAGTAGTGGC	AAGTGCAGGA	2820
168 169	CCTACATCTG	CTCGGGATGG	TATAAGAGAT	GCCATGGTTG	GTTTAAGAGA	AGAAATGATA	2880
170 171	GAAAAAATCA	GAACTGAAGC	ATTAATGACC	AATGACAGAT	TAGAAGCTAT	GGCAAGACTC	2940
172 173	AGGAATGAGG	AAAGTGAAAA	GATGGCAAAA	GACACATCAG	ATGAAGTGTC	TCTCAATCCA	3000
174 175	ACATCAGAGA	AATTGAACAA	CCTATTGGAA	GGGAATGATA	GTGACAATGA	TCTATCACTT	3060
176 177	GAAGATTTCT	GATTAGTTAC	CAATCTTCAC	ATCAACACAC	AATACCAACA	GAAGACCAAC	3120
178 179	AAACTAACCA	ACCCAATCAT	CCAACCAAAC	ATCCATCCGC	CAATCAGCCA	AACAGCCAAC	3180
180 181	AAAACAACCA	GCCAATCCAA	AACTAACCAC	CCGGAAAAAA	TCTATAATAT	AGTTACAAAA	3240
182 183	AAAGGAAAGG	GTGGGGCAAA	TATGGAAACA	TACGTGAACA	AGCTTCACGA	AGGCTCCACA	3300
184 185	TACACAGCTG	CTGTTCAATA	CAATGTCTTA	GAAAAAGACG	ATGACCCTGC	ATCACTTACA	3360
186 187	ATATGGGTGC	CCATGTTCCA	ATCATCTATG	CCAGCAGATT	TACTTATAAA	AGAACTAGCT	3420
188 189	AATGTCAACA	TACTAGTGAA	ACAAATATCC	ACACCCAAGG	GACCTTCACT	AAGAGTCATG	3480
190 191	ATAAACTCAA	GAAGTGCAGT	GCTAGCACAA	ATGCCCAGCA	AATTTACCAT	ATGCGCTAAT	3540
192 193	GTGTCCTTGG	ATGAAAGAAG	CAAACTAGCA	TATGATGTAA	CCACACCCTG	TGAAATCAAG	3600
194 195	GCATGTAGTC	TAACATGCCT	ААААТСАААА	AATATGTTGA	CTACAGTTAA	AGATCTCACT	3660
196 197	ATGAAGACAC	TCAACCCTAC	ACATGATATT	ATTGCTTTAT	GTGAATTTGA	AAACATAGTA	3720
198 199						AAATAAAGAT	3780
200						AAATGCAAAA	3840
202				ATCACAGTGA			3900
204 205							
203	AAATACATAA	DAAAJAJJOA	ICAAIICATA	GTAGATCTTG	GAGCTTACCT	AGAAAAAGAA	3960

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					1	INPU1 SE1: 535	530.raw
206 207 208	AGTATATATT	ATGTTACCAC	AAATTGGAAG	CACACAGCTA	CACGATTTGC	AATCAAACCC	4020
209 210	ATGGAAGATT	AACCTTTTTC	CTCTACATCA	GTGTGTTAAT	TCATACAAAC	TTTCTACCTA	4080
211 212	CATTCTTCAC	TTCACCATCA	CAATCACAAA	CACTCTGTGG	TTCAACCAAT	CAAACAAAAC	4140
213 214	TTATCTGAAG	TCCCAGATCA	TCCCAAGTCA	TTGTTTATCA	GATCTAGTAC	TCAAATAAGT	4200
215 216	TAATAAAAA	TATACACATG	GGGCAAATAA	TCATTGGAGG	AAATCCAACT	AATCACAATA	4260
217 218	TCTGTTAACA	TAGACAAGTC	CACACACCAT	ACAGAATCAA	CCAATGGAAA	ATACATCCAT	4320
219 220	AACAATAGAA	TTCTCAAGCA	AATTCTGGCC	TTACTTTACA	CTAATACACA	TGATCACAAC	4380
221 222				CATGATTGCA			4440
223 224				GTTACCAAGA			4500
225 226				CTTGCATTTA			4560
227 228				GCAAACCACT			4620
229 230				ATATCAAGAC			4680
231 232				GCACCGCTAA			4740
233 234				CGTGCTTATA			4800
235 236				TGATAATCTC			4860
237 238				AAGTCACACC			4920
239 240				CAACATACCT			4980
241 242				CATCACAAAT			5040
243 244				CCACAACAGT			5100
245 246				CAAAACAACG			5160
247 248				TCAACTTTGT			5220
249 250						GGAAAGAAAA	5280
251 252						CCCAAACCTC	5340
253 254						ACCATCAACA	5400
255 256						AATCCAGAAC	5460
257 258	TCACAAGTCA	AATGGAAACC	TTCCACTCAA	CTTCCTCCGA	AGGCAATCCA	AGCCCTTCTC	5520

## SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/09/444,221

DATE: 05/23/2000 TIME: 13:39:36

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### SEQUENCE CORRECTION REPORT PATENT APPLICATION US/09/444,221

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Corrected Text